

METHOD AND APPARATUS FOR IDENTIFYING A VERTICAL BLANKING
INTERVAL IN A TELEVISION SIGNAL

ABSTRACT OF THE DISCLOSURE

5 Various techniques and associated embodiments are disclosed for providing defensive measures against "black boxes," wherein the techniques utilize unconventional schemes for detecting the vertical blanking interval (VBI) of a video signal containing a copy protection signal. The unconventional schemes would be of particular interest to the black boxes, which must locate the VBI to generate a vertical rate signal in order to perform the task of illegally
10 removing the copy protection signal. The unconventional schemes utilize the particular characteristics or peculiarities of the video signals in the VBI to detect the VBI and generate therefrom a reliable vertical or frame rate signal. The characteristics include various pulse spacings and/or pulse widths which may occur in specific lines in the VBI, and which may be detected to allow deriving the reliable vertical or frame rate signal. Alternatively, techniques
15 for modifying the characteristic signals of the VBI also are disclosed to prevent the derivation of a correct or reliable vertical or frame rate signal utilizing the unconventional schemes of detection of previous mention. In a third alternative, the reliable vertical rate or frame signal is utilized to attenuate, defeat or otherwise modify an anti-copy protection signal or a normal video signal.